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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/731,485	12/10/2003	Heinrich Lutz	P69361US0	5376

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Washington, DC 20004

EXAMINER

JULES, FRANTZ F

ART UNIT	PAPER NUMBER
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3617

DATE MAILED: 11/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/731,485

Applicant(s)

LUTZ ET AL.

Examiner

Frantz F. Jules

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 September 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 4-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1, 4-22, 24, 25, 27 and 29-32 is/are allowed.
- 6) ☒ Claim(s) 23, 26 and 28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 09/21/2005.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 5-9, 14-20, 24-25, 27, 29-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takeuchi et al (US 4,841,869) in view of Williamson (US 4,369,563).

Takeuchi et al disclose a conveying device for a production or machining line with at least one, machining station, the conveying device (A) serving for the conveying of work pieces with conveying aids (4), like pallets and work piece carriers, wherein a primary part (C) of a linear motor being provided along the conveying path which creates a magnetic field and the conveying aid (4) being formed by a secondary part of the linear motor.

The conveying device serves for conveying of work pieces between the different as well as for a positioning of the work pieces in the machining station or for movement of the work pieces in the station in accordance with claims 2-3.

a surface of the secondary part has profiling (D) which in the co-operation with the magnetic fields of the primary part (C) provide the conveying force for the movement of the conveying aid in accordance with claims 7-8.

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The conveying device can be subdivided into different sectors along the conveying path of the conveying line since intermediate primary coils (C3) are used to accelerate the conveyor cart (A), see col 3, lines 55-69 in accordance with claims 8-9.

The secondary parts are formed by sledges on which the conveying aids (4) are arranged by means of mechanic catches, drivers and the like in such a way that they can be engaged and disengaged.

That between the stationary primary part (C) and the movable secondary part an air gap is formed which is set by rollers (7) or slide guides in accordance with claim 15.

That between the stationary primary part (C) and the movable secondary part an air gap (3) is formed which is set by rollers (7) or slide guides and the rollers (7) are designed in a profiled way in order to take over the lateral guide of the conveying aids (4).

That a position control is provided, comprising at least one position answering device which is arranged on the conveying aid (5) and with sensors arranged on the primary part including an adjustment device (18) as disclosed in col 5, lines 51-63, col 6, lines 7-28 in accordance with claims 17-20.

Jam paths are provided in the conveyor device as the conveying aids can be lined up in the conveyor paths if jamming occur.

That wedge surfaces are provided between a chassis (3) and work piece carrier which are designed mounting in the direction of the transfer direction (A).

A running element (9) is provided on the back end of the work piece carrier in accordance with claim 30.

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Takeuchi et al disclose all of the features as disclosed above but does not disclose using the conveying device in conjunction with machining stations as well as serving for positioning the work piece in the machining station. The general concept of using a conveying device in conjunction with machining stations as well as serving for positioning a work piece in the machining station is well known in the art as illustrated by Williamson which discloses the teaching of using a conveying device in conjunction with machining stations as well as serving for positioning the work piece in the machining station, see claim N. 59. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Takeuchi et al to include the use of the conveying device in conjunction with machining stations as well as serving for positioning the work piece in the machining station in his advantageous system as taught by Williamson in order to achieve a fully automated system while increasing production.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 4-13, 15-20, 24, 27, 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dorries et al (DE 29 45 109 A1) in view of Gruner (US 5,781,983). Conveying device for a production or machining line with at least one, machining station, the conveying device (15) serving for the conveying of workpieces (23) with

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conveying aids (16), like pallets and workpiece carriers, wherein a primary part of a linear motor being provided along the conveying path which creates a magnetic field and the conveying aid being formed by a secondary part of the linear motor as disclosed in the abstract.

The conveying device can be subdivided into different sectors along the conveying path of the conveying line and at least one coil (not shown) which forms a magnetic field is assigned to each sector and the magnetic fields can be separately switched on and off respectively as disclosed by the abstract which uses detectors to turn on and off the linear motor as the workpiece approaches and leave a station.

Dorries et al disclose all of the features as disclosed above but does not disclose using the conveying device in conjunction with machining stations as well as serving for positioning the workpiece in the machining station. The general concept of using a conveying device in conjunction with machining stations as well as serving for positioning a workpiece in the machining station is well known in the art as illustrated by Gruner which discloses the teaching of using a conveying device in conjunction with machining stations as well as serving for positioning the workpiece in the machining station, see abstract section. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Dorries et al to include the use of the conveying device in conjunction with machining stations as well as serving for positioning the workpiece in the machining station in his advantageous system as taught by Gruner in order to achieve a fully automated system while increasing production.

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5. Claims 31-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takeuchi et al (US 4,841,869) in view of The Admitted Information (pg 1-2 of spec). Takeuchi et al teach all the limitations of claims 31-32 except for a conveying device which connects at least two machining stations. The general concept of using a conveying device in connecting at least two machining stations is well known in the art as illustrated by The Admitted Information which discloses the use of a linear motor conveyor in conjunction with a machine tool. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Takeuchi et al to include the use of connecting at least two machining station in his advantageous conveyance system as taught by admission in order to create a fully automated work station thereby eliminating the use of human operator.

6. Claims 21-22, 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takeuchi et al (US 4,841,869) in view of Hamel et al (JP2-247506A). Takeuchi et al teach all the limitations of claims 31-32 except for a conveying device comprising at least one scanning element and a stopper in the conveyor line. The general concept providing a scanning element and a stopper in the conveyor line is well known in the art as illustrated by Hamel et al which discloses the teaching of using scanning operation and stopping devices to a conveyor line. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Takeuchi et al to include the use of at least one scanning element and a stopper in the conveyor line in his advantageous conveyance system as taught by Hamel et al in order to

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improve the performance of a fully automated work station thereby eliminating the use of human operator.

Allowable Subject Matter

7. Claims 23, 26, 28 stand allowable. None of the references of record suggests charging of the accumulator for the scanning element being carried out in a waiting position contact-less inductively, respectively capacitively in the manner defined in the instant claim 23.

Response to Arguments

8. Applicant's arguments filed 09/16/2005 have been fully considered but they are moot in view of the new ground of rejection.

Applicant's argument regarding the failure of the Takeuchi reference to move the transfer car for a movement of the work piece in the machining station during a machining in particular a cutting machine is weak as the transfer device is capable of performing with any system of machinery. However, applicant's argument the failure of the Takeuchi et al and of Dorries et al to disclose machining station or is valid and give rise to the new ground of rejection.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frantz F. Jules whose telephone number is (703) 272-6681. The examiner can normally be reached on Monday-Thursday and every other Friday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph S. Morano can be reached on (703) 272-6684. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Frantz F. Jules
Primary Examiner
Art Unit 3617

FFJ

October 27, 2005

FRANTZ F. JULES
PRIMARY EXAMINER

